

REMARKS

In the Non-Final Office Action dated March 16, 2006, claims 1-27 were pending, claims 14-27 were withdrawn, and claims 1-13 were rejected. More particularly, claim 13 was rejected under 35 USC §112, claims 1-7, 9, 10, 12, and 13 were rejected under 35 USC §103(s) over US 4,365,007 to Maru (Maru) in view of US 6,268,077 to Kelley (Kelley) and US 5,227,258 to Ito (Ito). Claim 8 was rejected under 35 USC §103(a) over Maru in view of Kelly and Ito and further in view of US 2003/0232230 to Carter (Carter). Claim 11 was rejected under 35 USC §103(a) over Maru in view of Kelley and Ito and further in view of US 2003/0044674 to Mallari (Mallari).

The Action asserts that the recitation of “a catalyst adapted to reform the fuel” does not constitute a limitation in any patentable sense. Applicants amend claim 1 to recite “a catalyst for reforming the fuel.”

Rejections under 35 USC §112

The Action asserts that the term “substantially” in claim 13 renders the claim indefinite. Without addressing the merits of this rejection, Applicants amend claim 13 to remove the recitation of “substantially planar.”

Rejections under 35 USC §103

The Action rejects claim 1 over Maru in view of Kelley and Ito. Claim 1 relates to an apparatus comprising a fuel cell stack and a catalytic microreactor and further states that the catalytic microreactor has a manifold adapted to convey fuel to the anode and a catalyst for reforming the fuel. The Action asserts that this subject matter is obvious in view of the combination of Maru and Kelley.

Applicants disagree. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations (MPEP 2142). As noted by the Examiner, “Maru does not disclose that the catalytic reactor is a microreactor,” nor does Maru make any such suggestion. Moreover, Kelley neither discloses nor suggests any catalytic reactor at all. Therefore, neither of the cited reference teach or suggest a catalytic microreactor, as recited in claim 1, and the Examiner has failed to make a *prima facie* case of obviousness since the cited reference do not teach or suggest all elements of

the claim. Thus, Applicants request reconsideration and withdrawal of the rejection to claim 1. Claims 2-13 depend from claim 1, and accordingly Applicants request reconsideration and withdrawal of the rejections to these claims.

Additionally, Applicants submit the combination of Maru in view of Kelley and Ito is improper. According to *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) and *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (cited in MPEP 2143.01), for prior art references to be proper for a §103 rejection, it is not enough that the prior art references are capable of being modified to achieve the claimed invention. Instead, there must be a suggestion or motivation in the reference to modify the prior art device “to run the way the apparatus is claimed.” As evidence for motivation to combine Ito and Maru, the Action cites lines 20-29 of column 1 in Ito, which does no more than list certain generic benefits of solid oxide fuel cells.

This does not constitute sufficient motivation to combine a solid oxide electrolyte with the other limitations of claim 1. Ito does not suggest or motivate using his solid oxide electrolyte the way the apparatus of claim 1 runs; namely, with a catalytic microreactor having a manifold in communication with the fuel cell and a catalyst for reforming the fuel. Moreover, Maru does not suggest using his fuel cell in the way the apparatus of claim 1 runs; namely, with a solid oxide fuel cell and a catalytic microreactor.

Thus, the Examiner has not met the standards of well-established law. Instead, the relied-upon passage in Ito merely recites generic benefits of solid oxide electrolytes without providing any evidence that Ito recognized either the problem or the solution contemplated by the claimed invention. Therefore, the Examiner has based these rejections on impermissible hindsight based upon the Applicants’ own disclosure. As noted above, Applicants request reconsideration and withdrawal of the 35 USC §103(a) rejection of claims 1-13.

In view of the above remarks, Applicants believe the pending application is in condition for allowance. Should the Examiner believe that the above amendments and remarks do not place this case in condition for allowance, Applicants request that the Examiner telephone the undersigned to schedule a telephonic interview.

Respectfully submitted,

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